

Claims:

1-24 (Cancelled)

25. (Currently Amended) A method for producing a compressed earth block, the method comprising:

(a) providing a compression chamber with an elongated bore having an open outlet end ;

(b) introducing into the bore of the compression chamber an amount of uncompressed earth; then

(c) forcing the uncompressed earth toward the outlet end, which is blocked by previously compressed lifts of earth, against which the uncompressed earth is compressed into a new lift within the compression chamber; and

(d) repeating steps (b) and (c) to provide a plurality of lifts compressed together within the compression chamber into a continuous length of compressed earth ~~that protrudes out the open outlet end; and~~

(e) separating ~~aan~~ an outer end portion from the continuous length to define a compressed block; and

wherein step (e) comprises mounting a shearing station in alignment with the outlet end of the compression chamber and pushing the outer end portion of the continuous length from the compression chamber into the shearing station; and

when the outer end portion of the continuous length protrudes out the open outlet end of the compression chamber by an amount equal to desired length of the block and into the shearing station, moving the shearing station transverse to the bore of the compression chamber then back again into alignment with the compression chamber while the outer end portion is in the shearing station to fracture the outer end portion from the continuous length.

26. (Currently Amended) The method of claim 25, wherein step (e) further comprises ~~pushing the portion of the length of compressed earth out the outlet end into and through~~ attaching a an outlet end of the shearing chamber station onto a forward end of a support structure, such that then moving the movement of the shearing chamber station transverse to the bore of the compression

chamber to shear said portion from the continuous length causes the forward end of the support structure to move transverse to the bore of the compression chamber in unison with the shearing station.

27. (Currently Amended) The method of claim 25, wherein step (eb) comprises moving the feeding the uncompressed earth into the compression chamber from a direction transverse to the boreshearing station transverse to the bore by an amount less than a transverse dimension of the bore.

28. (Currently Amended) The method of claim 25, wherein the transverse movement of the shearing station in step (ee) comprises applying pressure from an actuator to a ramming plate in an amount greater than an opposing frictional threshold force exerted by the previously compressed lifts occurs while simultaneously pushing the outer end portion of the continuous length from the compression chamber in step (c).

29. (Cancelled)

30. (Currently Amended) The method of claim 25, wherein step (d) further comprises varying the length of saidthe outer end portion of the continuous length of compressed earth protruding from the compression chamber by measuring the length of the outer end portion before moving the shearing station transverse to the bore.

31. (Currently Amended) The method of claim 25, wherein saidthe outer end portion of the continuous length of compressed earth protruding from the compression chamber in step (d) is made up of a plurality of lifts and has a length greater than 6 inches.

32. (Currently Amended) The method of claim 25, wherein said portion of the continuous length of compressed earth protruding from the shearing station in step (e) has a bore with substantially the same cross-sectional dimensions as the bore of the compression chamber in step (d) is made up of a plurality of lifts and has a weight greater than 100 pounds.

33. (Currently Amended) A method for producing a compressed block of earth, the method comprising:

(a) providing a compression chamber with an elongated bore having an open outlet end;

(b) introducing into the bore of the compression chamber an amount of uncompressed earth by feeding the uncompressed earth into the bore of the compression chamber from a port in a forward portion of the compression chamber; then

(c) while the port remains open, stroking a ram into the bore of the compression chamber progressing from the forward portion of the chamber towards the open outlet end, to apply a force to the uncompressed earth greater than an opposing frictional threshold force of all lifts of previously compressed earth in the bore, the ram blocking the port from the compression chamber as the ram moves past the port towards the open outlet end, preventing uncompressed earth from entering the compression chamber rearward of the ram as the ram is stroked forward; then

(d) moving the ram in a rearward direction and repeating steps (b) and (c) to force a continuous length of compressed earth made up of a plurality of the lifts toward and out the outlet end; and

(e) at when a selected an outer end point portion of the continuous length protrudes from the outlet end of the compression chamber for a selected length, shearing moving the outer end at least part portion of the continuous length protruding from the outlet end transverse to the compression chamber an amount less than a transverse dimension of the compression chamber to fracture the outer end portion from the remaining portion of the continuous length to define a compressed block

34. (Currently Amended) The method of claim 33 further comprising forming mating indentations and protrusions on side surfaces of the continuous length of compressed earth as it is being formed and passes through the outlet end, so that upon after shearing fracturing, an indentation on one of the compressed blocks will mate is mateable with a protrusion of another block to form interlocking surfaces.

35. (Previously Presented) The method of claim 33, wherein the compressed block is made up of a plurality of the lifts.

36. (Currently Amended) The method of claim 33, ~~further comprising:~~
~~placing a she~~further comprising:

placing a shearing chamber at the outlet end of the compression chamber; wherein
step (d) comprises incrementally moving the continuous length directly from the outlet
end into and through the shearing chamber with each of the strokes in step (c) until the outer end
portion of the continuous length protrudes from the outlet end of the compression chamber by
the desired length; and
step (e) comprises moving the shearing chamber transverse to the longitudinal axis.

37. (Previously Presented) The method of claim 33, further comprising:
providing the ram with a convex protrusion, and engaging the uncompressed earth with
the protrusion.

38. (Currently Amended) The method of claim 33, wherein step (e) ~~further comprises:~~
~~after shearing the compressed block from the continuous length, causing the ram to push the~~
~~compressed block forward onto~~comprises mounting a forward end of a supporting surface with
the next stroke in step (e) to an outlet end of the shearing chamber, causing part of the outer end
portion to be pushed onto the supporting surface, then moving the forward end of the supporting
surface in unison with the compression chamber transverse to the longitudinal axis.

39. (Currently Amended) The method of claim 33, wherein at the conclusion of step (d) and
before step (d), ~~further comprises moving the ram a rearward~~forward side of the ram will be
until spaced forward of the ram is longitudinally rearward of the port in the compression
chamber.

40. (Previously Presented) The method of claim 33, wherein the length of the forward stroke in
step (c) is substantially shorter than a longitudinal length of the compression chamber.

41. (Previously Presented) The method of claim 33, wherein as the ram moves forward in step (c), it closes off the port.

42. (Currently Amended) A method for producing a compressed block of earth, the method comprising:

(a) providing a compression chamber with a longitudinal bore having a longitudinal axis that ends with and an open outlet end, a hopper having a fill port on an upper side of the compression chamber communicating with the bore, and a ram that is movable within the bore from a retracted position on one side of the fill port to an extended position between the fill port and the outlet end;

(b) positioning a shearing chamber ~~chamber~~ and a support structure at the outlet end of compression chamber, the shearing chamber having a passage and an aligned position in which an axis of the passage is aligned with the axis of the bore of the compression chamber, the shearing chamber having a misaligned position in which the axis of the passage is out of alignment with the bore;

(b) while the ram is in the retracted position, feeding a batch of uncompressed earth into the bore from the hopper through the fill port; then

(c) while the fill port and the outlet end isare open, stroking the ram forward, the ram closing the fill port as it moves toward the extended position, the ram having a longitudinal dimension that prevents uncompressed earth from falling into the bore of the compression chamber when the ram is in the extended position, the forward movement of the ram -to forceforcing the uncompressed earth contained in the compression chamber against previously compressed lifts of earth in the compression chamber to add a newly compressed lift to the previously compressed lifts, and when the force exerted by the ram overcomes the frictional threshold of the combined mass of the previously compressed lifts and the newly compressed lift, advancing the combined mass an increment a pre-selected distanceforward; then

(d) moving the ram to the retracted position and repeating steps (b) and (c), thereby fusing each newly compressed lift with all previously compressed lifts to form a continuous length of compressed earth, which progressively exits the outlet end into the passage of the shearing chamber with each newly formed lift;

(e) when a desired length of the compressed earth has moved through the compression chamber into the passages~~shearing chamber onto the support structure~~, actuating moving the shearing chamber from the aligned position to the misaligned position then back to the aligned position while a portion of the continuous length of compressed earth remains in the passage to sever~~fracture from the continuous length~~ a compressed block of the desired length, which is fully supported on the support structure.

43. (Currently Amended) The method of claim 42 further comprising forming mating indentations and protrusions on side surfaces of the continuous length of compressed earth as it is being formed and passes through the compression chamber, the indentations and protrusions being configured so ~~upon~~that after shearing fracturing, an indentation of one of the compressed blocks ~~will mate~~is mateable with a protrusion of another of the compressed blocks to form interlocking or self-aligning features~~surfaces~~.

44. (Currently Amended) The method of claim 42, wherein ~~the shearing chamber of step (b) has open forward and rearward ends, and wherein~~ step (e) further comprises:
moving a forward end of the support structure in unison with the shearing chamber
~~transverse to the longitudinal bore of the compression chamber.~~